

Abstract of the Disclosure

Provided is an unleaded gasoline fuel which is substantially free of oxygenates, and most preferably contains substantially zero oxygenates. The gasoline fuel also has a Reid vapor pressure less than 7.5 psi, a sulfur content less than 30 ppmw, an aromatic hydrocarbon content between 25 and 30 volume percent, and/or a 50% D-86 Distillation Temperature between 210 and 220°F, and/or a 90% D-86 Distillation Temperature between 300 and 330°F, and the fuel composition fails the California Predictive Model requirements for emissions. Preferably, the olefin content of the fuel is also 8 volume percent or less. Such a gasoline fuel offers a substantially oxygenate free gasoline which avoids the environmental impact of oxygenates, yet when combusted in an internal combustion automobile provides good performance and good emissions, despite failing the California Predictive Model. The gasoline fuel in particular can provide surprisingly lower NO_x emissions than that predicted by the California Predictive Model.

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